

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C.**

In the Matter of

The Development of Operational, Technical
and Spectrum Requirements for Meeting
Federal, State and Local Public Safety
Communication Requirements Through the
Year 2010

WT Docket No. 96-86

**REPLY COMMENTS OF 3G AMERICAS, LLC ON THE
EIGHTH NOTICE OF PROPOSED RULEMAKING**

3G Americas, LLC (“3G Americas”) represents service, equipment, and software providers in the Americas deploying the GSM family of wireless technologies. Its primary mission is to facilitate the seamless deployment of third generation technology throughout the United States, Latin America, and the Caribbean. The Board of Governors of 3G Americas includes companies such as Andrew, Cingular Wireless, Ericsson, Hewlett-Packard, Lucent Technologies, Motorola, Nokia, Nortel, Research In Motion, Siemens, T-Mobile, and Texas Instruments. 3G Americas is committed to working with regulatory bodies, technical standards bodies, and other global wireless organizations to promote truly seamless interoperability and convergence for the over 2 billion GSM-based customers around the world. We and our members, moreover, value our partnership with public safety in working to improve the vital services that public safety officials provide to those in need.

3G Americas has regularly and vigorously supported technology neutrality and operator choice in the type of technology and services deployed by mobile operators, to best meet the operator's and its customers' needs, including the planned use of future evolutions of technology. Providing an operator with a choice in technology selection, and the flexibility to deploy new solutions as needs and capabilities change, allows competition between technologies, to the benefit of consumers. Such an approach also facilitates innovation, as technology providers develop new solutions to better meet customer needs and capture market share. These same principles of technology choice and flexibility should apply equally to public safety spectrum as well as commercial spectrum.

3G Americas urges the Commission to first implement a flexible band plan for the 700 MHz public safety wideband spectrum that accommodates 5 MHz broadband technologies, so that public safety entities will be able to incorporate broadband into their networks. Second, the Commission should consolidate the narrowband channels at the upper end of the 700 MHz public safety spectrum to increase spectrum efficiency, to decrease interference concerns, and to permit the use of a wider range of technologies for public safety communications. Third, the Commission should not mandate the use of any single broadband technology in this spectrum, but should remain neutral among competing technologies. The Commission should consider encouraging public safety to evaluate using existing commercial networks to meet their communications and interoperability needs. Allowing public safety entities to choose which technology best assists in meeting their local demands could provide cost-savings and innovation, thereby possibly increasing the safety of the public at large.

I. THE COMMISSION SHOULD IMPLEMENT A FLEXIBLE BAND PLAN THAT CAN ACCOMMODATE COMPETITIVE BROADBAND APPLICATIONS

3G Americas urges the Commission to modify the current band plan to accommodate 5 MHz broadband technologies, so that public safety agencies will have the opportunity to incorporate broadband into their networks. Representatives of the public safety community have already expressed a desire for increased flexibility in the existing 700 MHz wideband spectrum.¹ The communication needs of public safety agencies vary greatly depending on a host of factors, including “data rates and applications, jurisdictional area, costs, number of users and agencies in [the] area, [and] direct mode communications.”² Because these factors differ tremendously among regions nationwide, establishing fixed channel sizes on a national level will not best meet public safety agency needs. 3G Americas urges the Commission to accommodate the public safety community’s varied needs by allowing the Regional Planning Committees (RPCs) to establish the best combination of channel sizes and technological applications for each public safety agency.

A flexible band structure that allows RPCs to assign various channel sizes is especially important to many innovative broadband technologies (including W-CDMA/HSDPA , WiMax and 3GPP LTE), some of which require at least 5 MHz channels.³ A band plan that does not accommodate 5 MHz channels for broadband

¹ See, e.g. *Comments of the National Public Safety Telecommunications Council*, WT Docket No. 96-86, at 1-2 (filed June 5, 2005); *Comments of the International Association of Fire Chiefs*, WT Docket No. 96-86, at 2 (filed June 6, 2006).

² *Joint Reply Comments of International Association of Chiefs of Police, Major Cities Chiefs Association, National Sheriffs’ Association, Major County Sheriffs’ Association*, WT Docket No. 96-86, at 3 (filed June 6, 2006).

³ W-CDMA (Wideband Code Division Multiple Access) and HSDPA (High Speed Downlink Packet Access) are third generation follow-on technologies to GSM.

technologies would unnecessarily and unwisely limit the choice of broadband technologies available to public safety agencies. Allowing RPCs to first determine which technologies their localities require that provide the best opportunity for interoperability with neighboring areas, and then, which channel sizes to coordinate, will most effectively provide the degree of regional flexibility necessary for entities to best meet the individual needs of diverse regional communities.⁴

II. THE COMMISSION SHOULD CONSOLIDATE THE NARROWBAND CHANNELS FOR A MORE EFFICIENT BAND PLAN

The current band plan for the 700 MHz public safety spectrum places the 6 MHz of paired wideband spectrum between two 3 MHz paired blocks allocated for narrowband use. 3G Americas urges the Commission to consolidate the entire public safety narrowband spectrum at the upper end of the band, and to work with public safety to mitigate concerns about the impact to deployed equipment. This structure will promote flexibility and mitigate intermodulation interference by reducing the borders between narrowband and broadband operations from two to one. Narrowband consolidation and relocation will also increase flexibility and reduce overall interference within the spectrum by placing the 700 MHz narrowband channels adjacent to the 800 MHz narrowband channels, and similarly, placing the 700 MHz wideband channels adjacent to commercial broadband/AWS spectrum.

These considerable benefits to efficiency and interference protection will be well worth whatever effort is required to effectuate the modification. The National Public Safety Telecommunications Council states that more than 600,000 radios have already

⁴ See *The Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010, Eighth Notice of Proposed Rulemaking* (“8th NPRM”), at ¶ 2, 21 FCC Rcd. 3668 (2006).

been deployed for operation in the 700 MHz band.⁵ The Commission should work with public safety to develop a solution to minimize the impact that narrowband consolidation will have on this deployed base of equipment. One public safety entity believes that narrowband consolidation would require only a simple software fix to accommodate narrowband consolidation.⁶ Moreover, the Commission has only approved four RPC plans,⁷ and most RPCs have not submitted plans for the wideband spectrum and thus will have to make plan modifications in any case.⁸ Furthermore, “[m]uch of the work of coordinating these channels has already been done and will not need to be repeated,” as “RPCs have determined the number of channels each public safety agency will receive or the allotments in each county, and those decisions will not require revisiting.”⁹ Weighed against the added flexibility and reduced overall interference narrowband consolidation offers, it should be possible to find a solution to these challenges.

III. THE COMMISSION SHOULD IMPLEMENT A TECHNOLOGY-NEUTRAL BAND PLAN

3G Americas urges the Commission not to mandate the use of any single technology in the 700 MHz wideband channels. The Commission has long favored technology neutral spectrum allocations,¹⁰ a stance that has worked quite well in various

⁵ See Comments of the National Public safety Telecommunications Council at 7.

⁶ See Comments of Region 24 700 MHz Regional Planning Committee (“Region 24 RPC”) at 17 (noting that it would be “a relatively simple process to reprogram radios, especially with the limited number of devices in use nationwide”).

⁷ See 8th NPRM, at ¶ 25 n. 81 and 82, ¶ 35.

⁸ See Region 24 RPC Comments at 15;

⁹ Region 39 RPC Comments at 2.

¹⁰ See, e.g., *In the Matter of Review of the Spectrum Sharing Plan Among Non-Geostationary Satellite Orbit Mobile Satellite Service Systems in the 1.6/2.4 GHz bands; Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Service, including Third Generation Wireless Systems*, Report

spectrum bands, including the cellular and PCS bands.¹¹ Indeed, the Commission has implemented technology-neutral band plans in almost all of its recent spectrum allocations.¹² The unique considerations that prompted the Commission to mandate over-

and Order, Fourth Report and Order and Further Notice of Proposed Rulemaking, 19 FCC Rcd 13356, 13377 (¶ 46) (2004) (“This spectrum sharing plan represents a more technology neutral approach to assigning spectrum, thereby not giving a preference to a specific technology. Consequently, this sharing plan should promote more market-driven, as opposed to regulatory-driven, uses of spectrum. As discussed in prior Commission decisions, we consider technical neutrality to be an important spectrum management objective.”).

¹¹ See, e.g., *In the Matter of Biennial Regulatory Review – Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services*, Report and Order and Further Notice of Proposed Rulemaking, 20 FCC Rcd 13900, 13926 (¶ 56) (2005) (“The Commission seeks to promulgate rules that are ‘technology neutral’ because we believe that ideally it is in the public interest for competing telecommunications technologies to succeed or fail in the marketplace on the basis of their merits and other market factors, and not primarily because of government regulation.”); *In the Matter of Year 2000 Biennial Regulatory Review -- Amendment of Part 22 of the Commission's Rules to Modify or Eliminate Outdated Rules Affecting the Cellular Radiotelephone Service and other Commercial Mobile Radio Services*, Notice of Proposed Rulemaking, 16 FCC Rcd 11169, 11185-86 (“In developing the rules governing PCS and other similar services that are licensed by spectrum blocks, we determined that it is not necessary to select a particular technology to be used or to specify in our rules the technical details, such as modulation parameters, of any particular technology.”); *In the Matter of Year 2000 Biennial Regulatory Review---Amendment of Part 22 of the Commission's Rules to Modify or Eliminate Outdated Rules Affecting the Cellular Radiotelephone Service and other Commercial Mobile Radio Services*, Report and Order, 17 FCC Rcd 18401, 18424 (“we have sought to avoid specifying the particular technology to be used or to specify technical details, such as modulation parameters, of any given technology in our rules with respect to PCS and other similar market--based services”).

¹² See, e.g., *In the Matter of Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150--2162 and 2500--2690 MHz Bands; Part 1 of the Commission's Rules -- Further Competitive Bidding Procedures; Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and the Instructional Television Fixed Service Amendment Parts 21 and 74 to Engage in Fixed Two--Way Transmissions; Amendment of Parts 21 and 74 the Commission's Rules With Regard to Licensing in the Multipoint Distribution Service and the Instructional Television Fixed Service for the Gulf of Mexico; Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets*, Report and Further Notice of Proposed Rulemaking, 19 FCC Rcd 14165 (¶ 132) (2004) (“Allowing the band to be technology neutral is consistent with our goal to make the spectrum as flexible as possible as it permits licensees and the marketplace to determine which technologies should be utilized.”); *In the matter of Service Rules for the 746--764 and 776--794 MHz Bands, and Revisions to Part 27 of the Commission's Rules; Carriage of the Transmissions of Digital Television Broadcast Stations; Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television*, Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, 15 FCC Rcd 20845, 20847 (¶2) (2000) (establishing a technology neutral regulatory scheme for portions of the 700 MHz spectrum in which “competing wireless technologies can contend.”); *In the Matter of Principles for Reallocation of Spectrum to Encourage the Development of Telecommunications Technologies for the New Millennium, Policy Statement*, 14 FCC Rcd 19868, 19870-71 (¶ 9) (1999) (“Flexible allocations may result in more efficient spectrum markets.

the-air narrowband voice interoperability standards (Project 25 Phase 1) in the public safety arena are simply inapplicable in the current situation with respect to broadband technologies.¹³ Therefore, the Commission should not mandate a particular technology for the 700 MHz broadband channels, but should remain technology neutral.

CONCLUSION

3G Americas urges the Commission to support a flexible and efficient 700 MHz band plan that accommodates various technologies and channel sizes in the wideband portion of the spectrum and consolidates the narrowband channels.

Respectfully submitted,



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Flexibility can be permitted through the use of relaxed service rules, which would allow licensees greater freedom in determining the specific services to be offered.”).

¹³ See *The Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Communications Requirements Through the Year 2010*, Fourth Report and Order and Fifth Notice of Proposed Rule Making, 16 FCC Rcd 2020 (20011).